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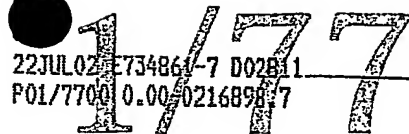
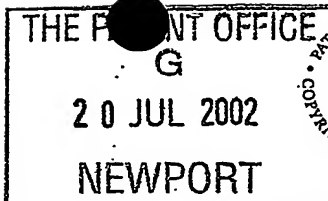
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Andrew Geisey

Dated 20 May 2003



Request for grant of a patent

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The Patent Office

Cardiff Road
Newport
South Wales
NP10 8QQ

1. Your reference	A10601GB - DJL/GMD		
2. Patent application number (The Patent Office will fill in this part)	0216898.7		20 JUL 2002
3. Full name, address and postcode of the or of each applicant (underline all surnames)	A & J Gummers Limited Unit H, Redfern Park Way Tyseley Birmingham B11 2DN		
Patents ADP number (if you know it) If the applicant is a corporate body, give the country/state of its incorporation	290593002 United Kingdom		
4. Title of the invention	Fluid Outlet Assembly		
5. Name of your agent (if you have one)	Forrester Ketley & Co.		
"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)	Chamberlain House Paradise Place Birmingham B3 3HP		
Patents ADP number (if you know it)	133005		
6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number	Country	Priority application number (if you know it)	Date of filing (day / month / year)
7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application	Number of earlier application		Date of filing (day / month / year)
8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer 'Yes' if:			
a) any applicant named in part 3 is not an inventor, or b) there is an inventor who is not named as an applicant, or c) any named applicant is a corporate body. See note (d))	YES		

Patents Form 1/77

9. Enter the number of sheets for any of the following items you are filing with this form.
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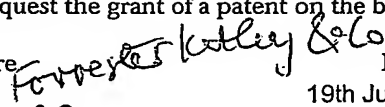
Continuation sheets of this form	-
Description	5
Claim(s)	2
Abstract	1
Drawing(s)	1 + 1 

10. If you are also filing any of the following, state how many against each item.

Priority documents	-
Translations of priority documents	-
Statement of inventorship and right to grant of a patent (<i>Patents Form 7/77</i>)	-
Request for preliminary examination and search (<i>Patents Form 9/77</i>)	-
Request for substantive examination (<i>Patents Form 10/77</i>)	-
Any other documents (<i>please specify</i>)	-

11. I/We request the grant of a patent on the basis of this application.

Signature



Date

19th July 2002

Forrester Ketley & Co.

12. Name and daytime telephone number of person to contact in the United Kingdom
- Graham M. Dodd
0121 236 0484

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PATENTS ACT 1977

A10601GB - DJL/GMD/TMA

Title: Fluid Outlet Assembly

Description of Invention

The invention relates to a fluid outlet assembly, and particularly but not exclusively to a fluid outlet assembly intended for connection of a flexible shower hose, to lead to a shower head.

It is usual in shower installations, e.g. in domestic bath/shower rooms, to dispose fixed pipework by which water is conveyed to the shower, behind a concealing panel with only the control(s) visible at the front surface of the panel. Such pipework may comprise hot and cold supply pipes leading to a mixer valve controlling the shower and a single pipe leading from the mixer valve to the outlet assembly, which pipe usually protrudes through the panel. The outlet assembly normally comprises an outlet elbow, which connects to the supply pipe by a compression fitting. However, the compression fitting is usually disposed within a space behind the panel and access to the space is needed in order to enable secure connection of the outlet elbow to the supply pipe.

One problem with such an arrangement is that the requirement for such access is inconvenient, both during first installation of a shower and particularly if for any reason the outlet elbow needs servicing or subsequent replacement. A part of the panel may have to be removed to enable access to the compression fitting, which is particularly inconvenient if there are tiles covering the panel.

It is therefore the object of the present invention to provide a fluid outlet assembly which overcomes the aforementioned installation problems.

According to the present invention, there is provided a fluid outlet assembly for connection to a fluid supply member extending through a panel from a rear to a front surface of the panel, comprising:-

an outlet member engageable with the fluid supply member at the front surface of the panel; and

connecting means operable from in front of the panel to connect the fluid supply member to the outlet member in a fluid-tight manner.

The assembly preferably comprises a support member adapted to lie against the front surface of the panel.

The connecting means is preferably a compression fitting and preferably comprises a sealing element deformable to establish a seal between the fluid supply member and the outlet member.

There may be a screw-threaded element adapted to engage with a complementary threaded portion of the outlet member.

The screw-threaded element is preferably held captive by a formation on the support member.

There may also be provided a cover member adapted to engage with the assembly to conceal the assembly therebeneath.

The cover member may engage with the assembly by a snap-fit with the assembly.

The outlet member may have a portion adapted to connect to a flexible shower hose. The outlet member may be an outlet elbow.

The invention will now be described with reference to the accompanying drawing which shows a side cross-sectional view of a fluid outlet assembly in accordance with the present invention.

Referring to the drawing, there is shown a fluid outlet assembly 10 in accordance with the present invention. There is a fluid supply member in the form of a pipe 12, which extends from, for example, a shower mixer valve (not shown). The pipe 12 passes through an aperture 11 in a panel 13, the panel 13 having a covering in the form of, for example, a tiled surface 14 bonded to the front surface of the panel 13 by an adhesive 15. Lying against the tiled surface 14, and reaching into the aperture 11, is a support member in the form of a

support plate 16, e.g. of a plastics material. The support plate 16 has a cylindrical recess 23 ending in a radial face 27, followed by a concentric sleeve 20 with an aperture 17. Fixed within the sleeve 20 is a further sleeve 18, within which the pipe 12 is a sliding fit, the sleeve 18 ending at an outwardly extending flange 19 spaced from the radial wall 27.

Disposed around the pipe 12 and extending into the recess 23 on the support plate 16 is a screw-threaded element in the form of a nut 22 with an inwardly extending flange 25 at one end. The flange 25 is captively received between the radial face 27 and the flange 19, so that the nut 22 cannot move any substantial distance length-wise of the pipe 12, but can rotate therearound. The surface of the nut 22, outside the recess 23 is, for example, hexagon-shaped for engagement with a spanner to allow a user to rotate the nut 22. The nut 22 is internally threaded at this end.

A fluid outlet in the form of an elbow 26, having an externally threaded portion 28, is engaged with the nut 22, thereby connecting the interior of the pipe 12 to the interior of the elbow 26. A further threaded portion 30 is provided at the free end of the elbow 26 for threaded engagement with a connector 32, which connects to a flexible pipe leading to a shower head (not shown).

Disposed between the sleeve 18 and the elbow 26 is a sealing means provided by an annular sealing member or "olive" 34. The olive 34 engages between facing annular recesses 36, 38 on the flange 19 and the threaded portion 28, respectively. The flange 19, nut 22 and the threaded portion 28, together with the olive 34 provide what is known in the art as a compression fitting.

When installing the fluid outlet assembly to a pipe 12, the pipe 12 must extend through the panel 13 and preferably protrude slightly from the tiled surface 14. The support plate 16, including the nut 22, which is engaged between the flange 19 and the radial face 27, is placed over the pipe 12 so that

the sleeve 18 receives the pipe 12. The olive 34 is then placed over the pipe 12 until it abuts the flange 19. The elbow 26 is partially threaded into the nut 22 and rotated until the threaded portion 30 is pointing in a desired direction, e.g. normally downwards for connection by connector 32 to a flexible pipe of a shower head (not shown). The nut 22 is tightened so as to collapse the olive 34 between the recesses 36, 38. The collapsed olive 34 provides an adequate fluid-tight seal between the pipe 12 and the elbow 26, such that a fluid, e.g. hot or cold water, can pass through the pipe 12 and into the elbow 26 and not escape.

A cover member in the form of a cover plate 36, e.g. of a plastics material, is snap-fitted to the support plate 16 to conceal the assembly therebeneath.

In the above description the support plate 16 and the sleeve 18 are of a compatible metal alloy, e.g. brass, allowing them to be welded, soldered or bonded to each another, thereby fixing the sleeve 18 within the sleeve 20 of support plate 16. The pipe 12 would be of copper, whilst the nut 22 and elbow 26 are conventionally manufactured from brass. The olive 34 is also of a copper based alloy, thereby allowing it to deform more easily and hence provide an adequate seal between the sleeve 18 and the elbow 26. However, it must be understood that other materials may be used for the components of the outlet assembly as long as they have physical properties capable of being utilised in the present invention.

In the present specification "comprises" means "includes or consists of" and "comprising" means "including or consisting of".

The features disclosed in the foregoing description, or the following claims, or the accompanying drawings, expressed in their specific forms or in terms of a means for performing the disclosed function, or a method or process for attaining the disclosed result, as appropriate, may, separately, or in any

combination of such features, be utilised for realising the invention in diverse forms thereof.

CLAIMS

1. A fluid outlet assembly for connection to a fluid supply member extending through a panel from a rear to a front surface of the panel, comprising:-
an outlet member engageable with the fluid supply member at the front surface of the panel; and
connecting means operable from in front of the panel to connect the fluid supply member to the outlet member in a fluid-tight manner.
2. A fluid outlet assembly according to Claim 1 further comprising a support member adapted to lie against the front surface of the panel.
3. A fluid outlet assembly according to Claim 1 or 2 wherein the connecting means is a compression fitting.
4. A fluid outlet assembly according to claim 3 wherein the compression fitting comprises a sealing element deformable to establish a seal between the fluid supply member and the outlet member.
5. A fluid outlet assembly according to any preceding claim wherein the assembly comprises a screw-threaded element adapted to engage with a complementary threaded portion of the outlet member.
6. A fluid outlet assembly according to Claim 5 as appendant to Claim 2 wherein the screw-threaded element is held captive by a formation on the support member.

7. A fluid outlet assembly according to any preceding claim wherein a cover member is provided, adapted to engage with the assembly to conceal the assembly therebeneath.
8. A fluid outlet assembly according to any preceding claim wherein the cover member engages with the assembly by a snap-fit with the assembly.
9. A fluid outlet assembly according to any preceding claim wherein the outlet member has a portion adapted to connect to a shower hose.
10. A fluid outlet assembly according to any preceding claim wherein the outlet member is an outlet elbow.
11. A fluid outlet assembly substantially as hereinbefore described with reference to the accompanying drawings.
12. Any novel feature or novel combination of features described herein and/or in the accompanying drawings.

ABSTRACT

Title: Fluid Outlet Assembly

A fluid outlet assembly for connection to a fluid supply member extending through a panel from a rear to a front surface of the panel, comprises an outlet member engageable with the fluid supply member at the front surface of the panel; and connecting means operable from in front of the panel to connect the fluid supply member to the outlet member in a fluid-tight manner. The outlet member may be a shower outlet elbow for connection of a shower hose.

